

Preliminary Amendment

Amendments to the Claims

1. (original) A semiconductor device comprising:

first and second contact pads;

a first plug portion electrically coupled with the first contact pad;

a capacitor bottom plate electrically coupled with the second contact pad;

a dielectric etch stop liner interposed between the bottom plate and the first plug portion;

a capacitor top plate having a portion which at least partially extends over the etch stop liner, wherein the top plate portion is further from the first contact pad than a top surface of the first plug portion, and wherein the top plate has an opening therein; and

a second plug portion electrically coupled with the first plug portion and extending through the opening in the top plate.

2. (original) The semiconductor device of claim 1 further comprising a dielectric spacer which electrically separates the second plug portion from the capacitor top plate portion.

3. (original) The semiconductor device of claim 1 wherein the bottom plate comprises, in cross section, at least two vertically-oriented portions which define a container, wherein at least part of each vertically-oriented portion of the bottom plate is interposed between two vertically-oriented portions of the top plate and is separated by the two vertically-oriented portions of the top plate by a capacitor cell dielectric layer to form a double-sided container capacitor.

4. (original) The semiconductor device of claim 1 further comprising a capacitor cell dielectric layer which contacts the etch stop liner and the capacitor top plate.

5. (presently amended) The semiconductor device of claim 1 further comprising a receptacle defined by said capacitor top plate, wherein the receptacle ~~which~~ is interposed between the first plug portion and the capacitor bottom plate.

6. (presently amended) The semiconductor device of claim 5 wherein the first plug portion has a height, and a height of the receptacle ~~height~~ is about 2/3 of the first plug portion height.

7. - 14. (canceled)

15. (new) A semiconductor device, comprising:

first and second conductive storage capacitor bottom plates each comprising a vertically-oriented sidewall;

a conductive plug interposed between the first and second conductive storage capacitor bottom plates; and

a conductive storage capacitor top plate comprising an opening therein and further comprising first and second vertical surfaces which define a first receptacle and third and fourth vertical surfaces which define a second receptacle,

wherein the first receptacle is interposed between the first conductive storage capacitor bottom plate and the conductive plug, and the second receptacle is interposed between the second conductive storage capacitor bottom plate and the conductive plug.

16. (new) The semiconductor device of claim 15 wherein the conductive plug is a first portion of a conductive plug and the semiconductor device further comprises:

a second portion of the conductive plug electrically connected to the first portion of the conductive plug, wherein the second portion of the conductive plug passes through the opening in the capacitor top plate.

17. (new) The semiconductor device of claim 15 further comprising a dielectric liner having first and second vertical surfaces which contact the conductive plug, wherein the first vertical surface of the dielectric liner is interposed between the first receptacle of the conductive storage capacitor top plate and the conductive plug and the second vertical surface of the dielectric liner is interposed between the second receptacle of the conductive storage capacitor top plate and the conductive plug.

18. (new) A semiconductor device comprising:

first and second digit line contact plug portions, wherein the second digit line plug portion overlies and electrically connects with the first digit line plug portion;

a container capacitor bottom plate having first and second vertically-oriented, cross-sectional sidewalls and a horizontally-oriented bottom electrically connected with the first and second sidewalls, wherein the first and second sidewalls and the bottom define a receptacle and the vertically-oriented sidewalls each having a first surface inside the receptacle and a second surface outside the receptacle;

a container capacitor top plate having a first vertically-oriented surface inside the receptacle and second and third vertically-oriented surfaces outside the receptacle, wherein the first and second vertically-oriented surfaces of the top plate are separated from the first vertically-oriented sidewall of the bottom plate by only a capacitor cell dielectric layer and wherein the second and third surfaces of the top plate, together with a bottom horizontally-oriented surface of the top plate, define a receptacle.

19. (new) The semiconductor device of claim 18 further comprising the capacitor top plate having a hole therein wherein the second digit line plug portion passes through the hole in the capacitor top plate.

20. (new) The semiconductor device of claim 18 further comprising a dielectric liner interposed between the first digit line plug portion and the receptacle defined by the capacitor top plate.

21. (new) The semiconductor device of claim 18 wherein a height of the receptacle defined by the capacitor top plate is about $\frac{2}{3}$ a height of the receptacle defined by the capacitor bottom plate.

22. (new) The semiconductor device of claim 18 wherein a height of the receptacle defined by the capacitor top plate is about $\frac{2}{3}$ a height of the first digit line contact plug portion.